

U.S. Patent Application Serial No. 09/817,365
Response dated April 26, 2004
Reply to OA of November 4, 2003

REMARKS

Claims 1 and 5 - 7 have been amended, and claims 12 and 13 have been added in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated November 4, 2003.

Claims 1, 2, and 4-11 are presently being examined.

At the outset, the applicants thank the Examiner for now indicating that claim 4 is now allowed, and claim 5 depending from claim 4, and claim 6 depending from claim 4, would be allowable if written to indicate such sole dependence. Amendments to claims 5 and 6, to place them in allowable form, are presented in this Amendment.

In view of the amendments to claims 5 and 6, depending solely from claim 4, new claims 12 and 13 are added in order to further prosecute claims 5 and 6 depending from claims other than claim 4.

As to the merits of this case, claims 1, 5, and 6 are rejected under 35 USC §102(b) as being anticipated by Baylor (U.S. Patent No. 4,426,091). The applicants respectfully request reconsideration of this rejection.

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The Examiner takes the position that Baylor discloses a seal assembly having a pair of seal rings comprising lip portions (52, 54) that protrude in opposite axial directions, a load seal ring 42 compressed and inserted between the seal rings and exerting reaction forces on the lips, and an inner diameter controller body (44) in contact with the load seal ring. Further, the Examiner takes the position that the load seal ring (42) has a groove (58 or 106) that tolerates axial compression.

The applicants respectfully submit that Baylor's seal is greatly restricted in its displacement when it is subjected to an axial direction compressive force. Referring to Fig. 1 of Baylor, it can be seen that only the alleged "lip portions" (52, 54) are free to move in reaction to the axially directed compressive force, as the alleged "load seal ring" (42) extends laterally in a totally solid manner to walls (22) and (34). Additionally, due to the alleged "inner diameter controller body" (44) being molded inside the alleged "load seal ring" (42) the movement of the seal is additionally restricted.

In the applicants' specification, at page 15, line 24 to page 16, line 9, the trapezoidal cross section, the cutout portions (29) and (29), and the relative lengths of the outer peripheral surface (26) and inner peripheral surface (30) of the load seal ring (2) are disclosed. Such features of the load seal ring (2) enable it to react to axial direction compressive forces in a more favorable manner in comparison with the alleged load seal ring (42) of Baylor which is highly restricted, as described above.

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In view of Baylor's disclosure and the position taken by the Examiner, the applicants have amended claim 1 in order to add the above-mentioned relative lengths of the outer peripheral surface and the inner peripheral surface of the load seal ring (2). It is submitted that such claimed structural arrangements, now set forth in independent claim 1, are not found in the teachings of the Baylor apparatus.

As such, not all of the claimed elements, as now set forth in independent claim 1, are found in exactly the same situation and united in the same way to perform the identical function in Baylor's apparatus. Thus, there can be no anticipation under 35 USC §102(b) of the applicants' claimed seal assembly, as now set forth in independent claim 1, based on Baylor.

Claims 5 and 6 have been amended in order to depend on allowed claim 4. As to added claims 12 and 13, such claims depend on claim 1, and further limit the scope of claim 1. Thus, at least for the reasons set forth above with respect to claim 1, claims 12 and 13 should now be similarly allowable.

Accordingly, the withdrawal of the outstanding anticipation rejection under 35 USC §102(b) based on Baylor (U.S. Patent No. 4,426,091) is in order, and is therefore respectfully solicited.

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As to the outstanding obviousness rejections, first, claim 2 is rejected under 35 USC §103(a) as being unpatentable over Baylor in view of Peguet (2,877,029). The applicants respectfully request reconsideration of this rejection.

The Examiner takes the position that Baylor does not disclose an outer-diameter controller body, but, according to the Examiner, Peguet teaches a sealing assembly having first and second seal rings (5,5') each having a lip, a load seal ring (R), and an inner diameter controller body (3); and a casing 7/4 and an outer diameter controller body (6) to mount the sealing assembly on a shaft so that the lips remain in sealing contact.

The Examiner relies on Peguet et al. for teaching an outer-diameter controller body for controlling the displacement of a load seal ring in a periphery outer direction. The applicants respectfully submit however that the Examiner misinterprets the teachings of Peguet et al. as the alleged "outer-diameter controller body" (6) does not contact the alleged "load seal ring" (R); and therefore it could not control the displacement of the alleged "load seal ring" (R) in a periphery outer direction. The alleged "load seal ring" (R) is claimed to be a helical compression spring; therefore it would not have any forces for displacing it in a periphery outer direction.

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In view of the above, even if *arguendo* the teachings of the prior art references can be combined in the manner suggested by the Examiner, such combined teachings would still fall far short in fully meeting the applicants' claimed invention, as now recited in the amended claims. Thus, the withdrawal of the outstanding obviousness rejection under 35 USC §103(a) based on Baylor in view of Peguet (2,877,029) is in order, and is therefore respectfully solicited.

Secondly, claims 7-10 are rejected under 35 USC §103(a) as being unpatentable over Taft et al. (U.S Patent No. 5,183,318) in view of Baylor. The applicants respectfully request reconsideration of this rejection.

The Examiner alleges that Taft et al. discloses a crawler-track connection comprising a pin (41) inserted through links (16), bushings (54) and (50), and a seal assembly (e.g. 60) disposed between radial walls of two bushings, but does not disclose the seal assembly having a load seal ring disposed between and exerting pressure on first and second seal rings each having lip portions. The Examiner further takes the position that Baylor teaches a sealing assembly having a pair of seal rings comprising lip portions (52, 54) that protrude in opposite axial directions, a load seal ring (42) compressed and inserted between the seal rings and exerting reaction forces on the lips, and an inner diameter controller body (44) in contact with the load seal ring and providing rigidity and limited displacement of the seal assembly.

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As discussed above, the seal assembly of Baylor has the alleged “load seal ring” (42) extending laterally in a totally solid manner between the radial-direction walls (W) and (W), thus greatly restricting the displacement of the seal when subjected to an axial direction compressive force. In the present invention, as shown in Figs. 1B, 4B, and 5B, the load seal ring (2) has an axial-direction length at an inner-peripheral side which is less than the distance between the radial-direction walls (W) and (W), which is controlled by the inner-diameter controller body (33).

In view of the teachings of Baylor and Taft et al., and the position taken by the Examiner, the applicants have amended claim 7 in order to include the load seal ring (2) having an axial-direction length at an inner peripheral side which is less than a distance between radial-direction walls (W). Based on the above, the teachings of Baylor and Taft, even if *arguendo* can be combined in the manner suggested by the Examiner, would still fall far short in fully meeting the applicants’ claimed invention, as now recited in the amended claims filed herewith.

Accordingly, the withdrawal of the outstanding obviousness rejection under 35 USC §103(a) based on Taft et al. (U.S Patent No. 5,183,318) in view of Baylor is in order, and is therefore respectfully solicited.

Lastly, claim 11 is rejected under 35 USC §103(a) as being unpatentable over Taft et al. in view of Baylor as applied to claims 7 to 9 above, and further in view of Johnson (U.S. Patent No.

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5,069,509). The applicants respectfully request reconsideration of this rejection.

The Examiner takes the position that neither Taft et al. or Baylor discloses a dust seal ring on an outer peripheral side of the seal assembly, but that Johnson teaches a dust seal (114) on an outer side of a seal assembly to minimize the seal's exposure to abrasive material.

Taft et al. and Baylor are discussed above. Johnson discloses a dust seal (114) between a sleeve end surface (70, 72) and an inboard link end (30). Johnson does not show a dust seal disposed at an outer peripheral side of a seal assembly as defined in the applicants' claim 11.

As such, even if *arguendo* the teachings of the cited prior art can be combined in the manner suggested by the Examiner, such combined teachings would still fall far short in fully meeting the applicants' claimed invention. Thus, a person of ordinary skill in the art would not have found the applicants' claimed invention obvious under 35 USC §103(a) based on Taft et al. in view of Baylor, further in view of Johnson.

Accordingly, the withdrawal of the outstanding obviousness rejection under 35 USC §103(a) based on Taft et al. in view of Baylor, and further in view of Johnson (U.S. Patent No. 5,069,509) is in order, and is therefore respectfully solicited.

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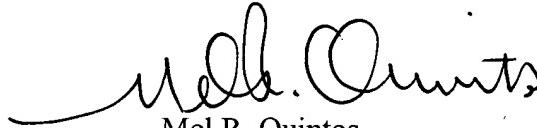
In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action at an early date is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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